

EECS 3461 M ASSIGNMENT 1 REPORT

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York University

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Method of Gathering Data

We gathered data from users by performing contextual inquiries. Each group member interviewed peers who are currently students at York University. Interviewees were asked questions relating to commuting, health and safety, wellness, time management, and food in regards to coming back to campus. A subset of the questions and answers are found in the Documented Notes section.

Documented Notes

Jared's Contextual Inquiries

I interviewed Nadine, a 2nd year illustration major at Seneca and Krish, a 4th year Computer Science student at York University.

Below are some of the questions and answers from **Nadine's** contextual inquiry:

- **Have you been having difficulties maintaining your social life ever since you came back in person?**
 - No, it has improved
- **Has coming back in person affected your mental health?**
 - Improved, happier, more excited to get out of bed
 - Social life improves so does mental health
- **How are you managing pressure/stress in person?**
 - In person helps relieve stress because she can talk to people
 - More things are open so can do extracurriculars
- **Are you satisfied with your commute? Are there any ways it could be made better?**
 - Not an issue

Here are some of the questions and answers from **Krish's** contextual inquiry:

- **Have you been having difficulties maintaining your social life ever since you came back in person?**
 - Yes
 - Can't recognize people because of masks
 - No one wants to talk because of covid
 - Harder than before
- **Do you have hybrid, in-person or online classes? Do you face problems with a hybrid or in-person schedule?**
 - Mix of in-person and online
 - No added problems with in-person

- **Do you think the covid protocols on campus are adequate? If not, what changes would you make?**
 - No
 - Small classroom, everyone sitting beside each other
 - Mask protocol and sanitizing protocol good
 - Remote learning option
 - Bigger classrooms

Parth's Contextual Inquiries

I interviewed Kedi Mengistu, a third year Software Engineering major at York University and Greatlove Bariboloka, a second year Software Engineering major at York University.

Following are some of the questions and answers from **Kedi's** contextual inquiries:

- **Is it tough to manage having a mix of in person and online?**
 - No
- **How has commuting affected your time management?**
 - “At times, due to the high traffic I may not be able to reach my first class in time, which in turn causes me to miss parts of class that I have to go back on and look at myself. This shifts other tasks to be completed later than supposed to which overtime causes a pile up of work.”
- **Do you attend live lectures or do you watch recordings?**
 - “For classes that offer an option of both, I choose to watch the recordings unless there are other factors that come into play like group meetings. For classes that are strictly live lectures, I attend in-person and for classes that are strictly online, I watch the lectures.”
- **Has coming back in person affected your mental health?**
 - Yes, but in a good way
- **How are you managing pressure/stress in person?**
 - I am utilizing the time in-between classes as time to complete course work and study

Following are some of the questions and answers from **Greatlove's** contextual inquiries:

- **Is it tough to manage having a mix of in person and online?**
 - No
- **How has commuting affected your time management?**
 - I'm usually exhausted by the time I get home so I can't really do anything more, so I've scheduled my activities for other times than when I get home
- **Do you attend live lectures or do you watch recordings?**
 - Live lectures

- **Has coming back in person affected your mental health?**
 - Yes, positively
- **How are you managing pressure/stress in person?**
 - I've made a new system that will allow me to get my required sleep at home and to leverage commuting time for doing school work

Hui's Contextual Inquiries

I interviewed Gary, a second year Computer Science major at York University

Below are some of the question and answers from **Gary's** contextual inquiry:

- **Do you feel safe in Campus? What do you think about the campus in the day and the night?**
 - I don't really feel safe on campus, because I saw people did not really follow the mask protocol
 - I feel like safety measures are not being enforced on campus
 - As for night time I had heard events like robbery, and those make me feel nervous as well
- **There's been a mix of remote and in person study in this winter term. Did you have a hard time finding it difficult to manage between these two forms?**
 - It is tough to manage both online and in person courses
 - If there's one day that I have a mix of both online and in person courses, it is hard to manage the schedule because I have to find somewhere quiet to attend the online lecture
- **Has coming back to campus and in person study impacted your mental health?**
 - This winter term had given me anxiety, because the mix of both in person and online is making a lot of things hard to manage and plan
 - I honestly think this winter term should just be remote at all
- **How do you come to campus?**
 - By commute, takes me average of an hour or so to arrive at campus

San's Contextual Inquiries

I interviewed Yathartha, a 3rd year Computer Engineering major at Seneca and Kika, a 3rd year Communication Studies student at York University.

Below are some of the questions and answers from **Yathartha's** contextual inquiry:

- **Have you been having difficulties maintaining your social life ever since you came back in person?**
 - Yes, harder to make friends after returning to in-person classes
- **Has coming back in person affected your mental health?**
 - Improved mental health, like hybrid learning lifestyle
- **How are you managing pressure/stress in person?**
 - Prefers to keep things to himself
 - Uses forms of entertainment to distract himself
- **Are you satisfied with your commute? Are there any ways it could be made better?**
 - Commute takes 2 hours but nothing university can do to help, only TTC

Below are some of the question and answers from **Kika's** contextual inquiry:

- **Do you feel safe in Campus? What do you think about the campus in the day and the night?**
 - Feels unsafe on campus at night
 - Lives on campus but feels more safe during the day than night
- **There's been a mix of remote and in person study in this winter term. Did you have a hard time finding it difficult to manage between these two forms?**
 - Harder at times than other but can be manageable
 - Prefers some classes to be online than others
- **Has coming back to campus and in person study impacted your mental health?**
 - Mental health improved in a positive way
 - Helps to focus on himself
 - Harder to find peers that can help clear doubts
- **How is your social life on campus?**
 - Horrible social life
 - Harder to approach people due to Covid protocols
 - Hopes to find a service that can help with the shift

Tariq's Contextual Inquiries

I interviewed Alex, a third year Computer Science student at York University.

Below are some questions and answers I received from **Alex's** contextual inquiry:

- **Is it tough to manage having a mix of in person and online?**
 - It can be tough at times having to set up your schedule while considering commute times, especially back to back with an online class
 - Tough to ensure that I can find a place after my in person class to do my online class, have to spend some time finding a quiet spot where I can talk
 - Generally this is manageable, but with some difficulty

- **How is your social life?**
 - Social life is alright, have some close friends
 - Harder to meet new people when school is online, most people turn off webcams and stay on mute
 - Have to go out of your way and put extra effort to meet new people
- **Has coming back to campus and in person study impacted your mental health?**
 - It has affected mental health in a good way. It is refreshing to get out of the house, enjoy campus amenities, and meet new people
- **How do you come to campus?**
 - I drive and park at York University. Takes me about 30-45 minutes with traffic to get from home to school

Findings and Commonalities

Based on the contextual inquiries, there were several commonalities between the interviewees. We divided the commonalities into three sections. Below is the first section of commonalities:

- It is tough to manage a mix of in person and online
- Coming back in person affects mental health
- Harder to socialize and make friends after returning to in-person classes
- Safety protocols are found to be inadequate, people feel unsafe on campus due things like lack of available hand sanitizer and free masks
- Taking long time to commute when coming to campus, exhausting their mentality

Below is the second section of commonalities:

- Interviewees like Nadine and Alex quickly adjusted to in-person learning
- Based on their responses, it is clear that they are extroverted people who have an easy time socializing and making new friends
- Their mental health has improved since returning to campus
- Commuting was not a negative factor in their return to in-person learning
- Time management was not a big issue

Below is the third section of commonalities:

- Hui and Gary are international students who had trouble finding support in their first year
- They had trouble finding friends
- Studying and socializing was made even harder during the pandemic

User Profiles

Based on the three sections of commonalities we derived three user profiles: introvert, extrovert, and freshman as seen below:

USER PROFILE - INTROVERT



Introvert
Casual User

DEMOGRAPHIC

- **Education level:** Any year of study
- **Program:** All programs
- **Gender:** Any gender/lgbtq+
- **Diversity:** All-inclusive
- **Non-campus resident students/International students**
- Targeted towards younger university students
- **Languages:** English, but can account for French speakers

USER NEED

- User prefers to be alone, is more closed off until comfortable with people around them
- User invests in their own hobbies
- User wants to make new friends after returning to campus
- User wants better social life on campus
- User seeks more student hubs and more platforms for making new friends
- User wants more online options for meeting people, socializing, etc

USER GOALS

- Meeting like-minded people
- Join Clubs

USER PROFILE - EXTROVERT



Extrovert
Frequent User

DEMOGRAPHIC

- **Education level:** Any year of study
- **Program:** All programs
- **Gender:** Any gender/lgbtq+
- **Diversity:** All-inclusive
- **Non-campus resident students/International students**
- Targeted towards younger university students
- **Languages:** English, but can account for French speakers

USER NEED

- User prefers being around a lot of people and meeting new people
- User prefers group activities
- User likes going to parties, club events and meetups.
- User wants to make new friends post-covid
- User wants more in-person options for meeting people, socializing, etc
- User expects a new platform to help organize, respond to, and invite students to events around campus

USER GOALS

- Make more friends
- Networking
- Attend events
- Socializing

USER PROFILE – FRESHMAN



First-Year Student
Novice User

DEMOGRAPHIC

- **Education level:** Any year of study
- **Program:** All programs
- **Gender:** Any gender/lgbtq+
- **Diversity:** All-inclusive
- **Non-campus resident students/International students**
- Targeted towards newer university students
- **Languages:** English, but can account for French speakers

USER NEED

- User is interested in university life and activities
- User hopes to find facilities that can provide help to freshman students
- User wants to find more volunteering opportunities and workshops
- User wants easier access to university resources and services
- User expects to find more options when it comes to socializing on campus
- User wants more online and/or in-person options for meeting people, socializing, etc

USER GOALS

- Help and Support with University Life
 - Attend workshops
 - Volunteering

Personas

Below are the personas we derived from each user profile. Jared Miller is a persona based on the introvert user profile. Tony Matteo is a persona based on the extrovert user profile. Gary Fu is a persona based on the freshman user profile.



Jared Miller

Age: 19
Year of Study: 2nd Year Student
Student Type: Local Student
Language: English
Major: Sociology

GOALS

- Making friends
- Joining new clubs
- Attending social events at York University
- Friends who respect introverted mindset & similar interests

FRUSTRATIONS

- Not finding success in meeting new people/like minded people
- Not being able to break the ice when meeting new people

Jared is a 2nd year Sociology student returning to in-person lectures in 2022. He is eager to make friends but is shy to approach others. Jared hopes to socialize more and seeks a platform that can help him make new friends at York University.

"To me, new friends, new genres, new person-to person chemistry is the DNA of EDM"
"I am looking forward to making new friends on campus"

PERSONALITY TRAITS		
Introvert	<div style="width: 50%; background-color: #99ff99; height: 10px;"></div>	Extrovert
Thinking	<div style="width: 50%; background-color: #9999ff; height: 10px;"></div>	Feeling
Sensing	<div style="width: 50%; background-color: #99ff99; height: 10px;"></div>	Intuitive

PERSONALITY

- Shy
- Empathetic
- Organized
- INTP

INTERESTS

- Board games
- Jiu Jitsu
- Reading
- Tennis



Tony Matteo

Age: 20
Year of Study: 3rd Year Student
Student Type: Local Student
Language: English/Spanish
Major: Business Studies

GOALS

- Making friends
- Network
- Joining new clubs
- Attending social events at York University
- Planning and organizing events

FRUSTRATIONS

- Not having tools to socialize and study
- Not having a list of up-to-date events or clubs altogether on a platform

PERSONALITY TRAITS

Introvert	<div style="width: 20%; background-color: #8B572C;"></div>	Extrovert
Thinking	<div style="width: 70%; background-color: #8B572C;"></div>	Feeling
Sensing	<div style="width: 50%; background-color: #8B572C;"></div>	Intuitive

"I am looking forward to fun activities on campus and meeting new people"
"I love to party and look forward to going to social event"

PERSONALITY

- Talkative
- Friendly
- Action-oriented
- ENTP

INTERESTS

- Soccer
- Music
- Gym
- Video Games



Gary Fu

Age: 19
Year of Study: 3rd Year Student
Student Type: International Student from China
Language: English/Chinese
Major: Computer Science

GOALS

- Making friends with other resident students
- Get help with starting school life
- Attend social event and workshops for 1st year students
- Meet peers and alumni

FRUSTRATIONS

- Unfamiliar with university life and university logistics
- Doesn't have friends to clear confusion with and unaware of support facilities

PERSONALITY TRAITS

Introvert	<div style="width: 80%; background-color: #4682B4;"></div>	Extrovert
Thinking	<div style="width: 80%; background-color: #4682B4;"></div>	Feeling
Sensing	<div style="width: 80%; background-color: #4682B4;"></div>	Intuitive

"This is my first year of university life in Canada, and I don't have a clue on how it will turn out. I'm really excited and nervous to experience the social and school life"

PERSONALITY

- Smart
- Curious
- Action-oriented
- INFJ

INTERESTS

- Reading
- Music
- Traveling
- Fashion

Scenarios

Scenario for Jared Miller Persona

- Jared is a 2nd year student at York University, who's very shy and struggled to make many friends in his first year. One day as Jared is walking home from class, he sees an advertisement poster for an app called 'StudentYU' that supposedly helps students in their student lives and gets them more involved with the student community. Since Jared doesn't have many friends and finds it hard to approach people, he typically refrains from opportunities from meeting new people. However since the app is digital and doesn't require human interaction, he decides to sign up and explore the application, entering in his interests. Jared typically spends his time alone and occasionally plays video games, and finds a club called 'YorkU Esports' on the app's list of student clubs. He finds out this club meets virtually over the internet, and he is far more comfortable with this as he doesn't have to approach people in person.

Scenario for Tony Matteo Persona

- Tony and his brother are students at York University and greatly enjoy martial arts, and regularly attend local gyms in their area to train. One evening after getting home from the gym, they realize there is a big age gap between their age and who they're training with at the gym
- Tony and his brother conclude they would like to train with younger people, preferably who are also students at York University
- Tony remembers an app called StudentYU that advertised to help with regards to student social life, and getting more involved with their community. He downloads the app and scrolls through a list of clubs, to find the York muay thai club and the York brazilian jiu-jitsu club
- He points this out to his brother, and after looking more in depth they see both clubs have events coming soon at the York university gym

Scenario for Gary Fu Persona

Today was a busy day for Gary as he just came back from the university office and finished his York student ID card and other administrative stuff. While he is still confused about how everything works. He saw a post about StudentYU that is able to provide help to freshmen to set up and prepare for their university life, which is what he needs right now. Then he downloaded and tried the app for the first time. He found that there's something called Workshop and club lists, and then there's a section in the app that is dedicated to provide support for students like

him. He decided to attend this social event called new student gathering, and got a lot of help and suggestion from upper year students

Volere Requirements

Functional Requirements

- The product shall ask for the user's interests and recommend clubs, social events, and workshops to the user
- The product shall recommend York students that the user can friend based on their interests
- The product shall have a full list of clubs, social events, workshops, and support resources at York University
- The product shall have a search functionality for the above list
- The product shall have various resources for first year students and international students to access

Non-Functional Requirements

Look and Feel Requirements

Appearance Requirements

This is a product for York University students so it should have the color scheme and style of York University websites/applications. If this becomes an official product for York University, it must follow the styling guidelines set by York U, otherwise the style can be less strict.

Additionally, the target audience are students in their 20s so it should have a look that people in this age group are familiar with, i.e. a modern appearance.

- Fit Criterion
 - The product shall have the appearance of a York University application.
 - The product shall have a modern appearance

Style Requirements

The users require help in their social life so the product should feel welcome and comfortable.

- Fit Criterion

- The product shall invoke a welcoming feeling in the user and make them feel comfortable.

Usability and Humanity Requirements

Ease of Use Requirements

Users should be finding clubs and social events that interest them and end up joining/attending. Introverted/Freshman type users should find it easy to find other users with similar interests

- Fit Criterion
 - At least 60% of users shall join at least one club and attend at least one social event every month
 - At least 80% of introverted/freshman identified users shall connect with users with similar interests

Personalization and Internationalization

- Fit Criterion
 - The product shall allow the user to select their preferred language (English, French, Others)

Learning Requirements

- Fit Criterion
 - After going through the tutorial/tour the user shall be able to navigate the app, find all clubs/social events/volunteer opportunities/workshops, and utilize the other app features

Understandability and Politeness Requirements

- Fit Criterion
 - The product shall use words and terms that are understandable for the target audience

Accessibility Requirements

- Fit Criterion
 - The product shall be usable by the auditory and visually impaired

Convenience Requirements

- Fit Criterion
 - The product shall help users be up to date with new events or clubs that meet their interests

- The product shall ensure the list of social events, clubs and workshops are properly updated
- The product shall frequently recommend to the user people who share their interests

Performance Requirements

Speed and Latency Requirements

- Fit Criterion
 - The application should have a quick response time, to avoid clouding the user's thought process. There should be a maximum two second loading time in between pages.

Safety-Critical Requirements

- Fit Criterion
 - The application should **not** have outdated information that could cause people to plan their schedules incorrectly

Precision or Accuracy Requirements

- Fit Criterion
 - The application should be updated daily with the latest information, to avoid having outdated data. The application should also check for changing parameters such as an event time change, location change or date change.
 - The application should be 100% precise and accurate at the time of use

Reliability and Availability Requirements

- Fit Criterion
 - The product should be able for use 24 hours per day, 7 days per week
 - During peak school times (9am-5pm) Monday to Friday, the application will increase its maximum number of users to account for higher demand. During off peak times, the application will lower its maximum users to ensure it is capable of processing all users.

Robustness or Fault-Tolerance Requirements

- Fit Criterion
 - In the event of internet loss, the application should display the most frequent data loaded in its cache, and the user should be aware the application status is offline.

Scalability or Extensibility Requirements

- Fit Criterion
 - During the first release, the application should be able to process a large number of users. As the application scales and becomes more popular with students, our infrastructure should scale accordingly to support the higher number of users.

Operational and Environmental Requirements

Expected Physical Environment

- Fit Criterion
 - The product should be usable on a phone in any conditions where the phone is functioning. The only condition is if there is no access to internet, the application should work with limited functionality

Wider Environment Requirements

- Fit Criterion
 - The product should be entirely digital, to minimize carbon footprint as much as possible.

Requirements for Interfacing with Adjacent Systems

- Fit Criterion
 - The product should work on the most popular phones, iPhone and Android, running the latest version of their respective operating system.

Productization Requirements

- Fit Criterion
 - The product should be installed as an application on the respective device's app store.
 - The product should work on the most popular phones, iPhone and Android, running the latest version of their respective operating system.
 - The product should be able to be installed by a student and should give an 'onboarding' on the first launch, showcasing key features

Release Requirements

- Fit Criterion
 - The maintenance releases to update information will occur over the air, and will not cause previous releases to fail.

Backwards Compatibility Requirements

- Fit Criterion
 - When the database is updated with new events/clubs, the application should be backwards-compatible and know to pull data from the new updated database, even if the application is an older version.

Maintainability and support requirements

Maintainability

- Fit Criterion
 - The product should fix bugs timely
 - The product should focus on monitoring performance
 - The product should focus on adding new feature updates
 - 24/7 app availability
 - Maintaining a list of the clubs/ events happening around the campus
 - Making sure clubs and activities related to specific tags are regularly updated
 - Making sure empty spots around the campus are regularly updated and maintained

Supportability

- Fit Criterion
 - Adding contacts for support/assistance around campus
 - Chat with support
 - Application onboarding/ Using product tours to introduce our application or incentivise onboarding with gamified in app assistance.
 - Pop-ups to display new features
 - Pop-ups can include CTAs, media links, product tours or just a simple message that guides your users on how to proceed further within the application

Adaptability Requirements

- Fit Criterion
 - Ensure app adaptability with new hardware, which includes new aspect ratios for new mobile device screens
 - Ensure app adaptability with different devices like mobile, tablets, laptops, etc
 - Ensure app support with new software, which includes different operating systems like iOS, android, windows, etc

Security requirements

Access Requirements

- Fit Criterion
 - Only YorkU students are allowed to access the app
 - Need their University yorku id and password to login and use services

Integrity Requirements

- Fit Criterion
 - Having a back-up of our database in case we lose our data

Privacy Requirements

- Fit Criterion
 - Let the user know about its information practices before collecting their information
 - Notify users about change in information policies

Audit Requirements

- Fit Criterion
 - The app shall comply with proper audit rules

Immunity Requirements

- Fit Criterion
 - The app shall prevent a robot from entering the app
 - Protect the app from virus, malware interference

Cultural and political requirements

Users shall not be offended for the reasons listed below and other users shall not take advantage of minority groups and cultures.

Cultural requirements

All cultural diversity has to be included and respected for a multicultural environment

- Includes, but not limited to different races and first nations
- Language barrier be considered
- Reject using colors, icons and measurement that might be offensive for other cultural
- **Fit criterion:** App shall not include information, or opinion that would violate any rules from above and maintains an environment that embraces diversity and inclusion

Personal choices has to be included and respected

- LGBT conventions
- Any Marital statuses
- **Fit criterion:** In a case of an offensive intention from a user, it will be immediately reported to the app and action will be taken on offensive behavior

Political requirements

Political diversity also has to be included and respected

- Includes right wing and left wing political views
- The app shall not enforce any political view but users may freely express their political view
- **Fit Criterion:** The product shall enforce political diversity and maintain multicultural elements. Freedom of speech shall be maintained at all times

Legal requirements

App shall comply with the law, as it is to avoid lawsuits, legal fees and delay according to the law. A consultant with a lawyer or someone with knowledge about the law shall be considered to help identify issues regarding legal problems.

Law includes, but not limit to:

- Personal information is protected to comply Data Protection Act
- Freedom of speech
- Intellectual property
- Plagiarism
- Minority protection

Fit criterion: App shall comply with general industry standards to avoid delays, including: university standards, professional standards and expert standards.

Use Cases

Use Case 1: User finds and attends an event on the app

1. The app prompts the user for York Passport credentials
2. The user enters their York Passport username and password

3. The user navigates to the full list of events at York University
4. The app displays the list of upcoming events
5. The user browses the events list and chooses an event of interest
6. The app displays event details (e.g. event time, date, location, capacity limit)
7. The user RSVPs to the event
8. The app confirms the RSVP and reserves a spot for the user
9. The user sends invitations for the events to friends
10. The app sends the invitations

Use Case 2: User finds events related to their personal hobbies and reach out to other students who are also attending the event

1. The app prompts the user to log in using York Passport username and id
2. After signing in, the app asks if the user would like to enter information such as hobbies/courses/interests/demographic/social media
3. The user enters their relevant information
4. The app's algorithm looks for matches with other students with similar hobbies/courses/interests/demographics
5. The app will provide a list of clubs and events that match the users information
6. The user finds a club they are interested in and requests to join the club
7. The app confirms the request was sent and forwards the request to the club executives
8. The app displays a list a students currently enrolled in the club
9. The user reaches out to these students via their YorkU email or any other contact information the user listed in step 2